MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

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INTRODUCTION.

The REVIEW for February, 1897, is based on 2,764 reports from stations occupied by regular and voluntary observers, classified as follows: 142 from Weather Bureau stations; numerous special river stations; 33 from post surgeons, received through the Surgeon General, U. S. Army; 2,547 from voluntary observers; 96 received through the Southern Pacific Railway Company; 14 from Life-Saving stations, received through the Superintendent United States Life-Saving Service; 32 from Canadian stations; 1 from Hawaii; 20 from Mexican stations. International simultaneous observations are received from a few stations and used together with trustworthy newspaper extracts and special reports.

The WEATHER REVIEW is prepared under the general editorial supervision of Prof. Cleveland Abbe. Unless otherwise specifically noted, the text is written by the Editor, but the meteorological tables contained in the last section are furnished by Mr. A. J. Henry, Chief of the Division of Records and Meteorological Data. Special acknowledgment is made of the hearty cooperation of Prof. R. F. Stupart, Director of the Meteorological Service of the Dominion of Canada, Mr. Curtis J. Lyons, Meteorologist to the Government Survey, Honolulu, and Dr. Mariano Bárcena, Director of the Central Meteorological Observatory of Mexico.

CLIMATOLOGY OF THE MONTH.

GENERAL CHARACTERISTICS.

The month was generally slightly warmer than the normal; the principal deficits were on the southern Plateau and the northern Slope. The rain and snowfall was generally in excess in the south Atlantic and east Gulf States, and on the Pacific Coast, but deficient over the Lake Region, New England, and the Mississippi Valley. The snowfall was abundant and well preserved so that east of the Rocky Mountains it was deeper than usual at the close of the month. The barometric pressure was everywhere deficient, except in New England and the St. Lawrence Valley. Notable river floods were reported in the Ohio and elsewhere.

ATMOSPHERIC PRESSURE.

[In inches and hundredths.]

The distribution of mean atmospheric pressure reduced to sea level, as shown by mercurial barometers, not reduced to standard gravity, and as determined from observations taken daily at 8 a. m. and 8 p. m. (seventy-fifth meridian time), is shown by isobars on Chart IV. That portion of the reduction to standard gravity that depends on latitude is shown by the numbers printed on the right-hand border.

The *mean pressures* during the current month were high throughout the Atlantic States, and highest over the Rocky Mountain Plateau Region. They were low in the extreme northeastern and northwestern portions of the United States; they were lowest in the Canadian Provinces, Newfoundland, and British Columbia. The reduced pressures were highest: In the United States, Idaho Falls and Salt Lake City, 30.14; Carson City, 30.13; Harrisburg, 30.12; San Luis Obispo, Huron, Northfield, Lynchburg, Atlanta, Charleston, Tampa, Jupiter, and Key West, 30.11; in Canada, White River, 30.14; Winnipeg, Minnedosa, and Battleford, 30.10. The lowest were: In the United States, Tatoosh Island, 29.91; Fort Canby, 29.92; Portland, Oreg., 29.97; Spokane, 29.99; in Canada, St. Johns, N. F., 29.73; Esquimault, 29.91; Sydney, 29.94.

As compared with the normal for February, the mean pressure was in excess in New England and the St. Lawrence Valley; elsewhere it was deficient. The greatest excesses were: In the United States, Eastport, 0.07; Northfield, 0.05; Albany, 0.04; in Canada, White River, 0.06; Charlottetown, 0.05; Father Point and Halifax, 0.04. The greatest deficits were: United States, Havre and Rapid City, 0.14; Pueblo, 0.13; Spokane and Miles City, 0.12; Tatoosh Island, Roseburg, and Walla Walla, 0.11; Canada, St. Johns, N. F., 0.19; Medicine Hat, 0.12; Swift Current, 0.09; Calgary and Qu'Appelle, 0.07.

As compared with the preceding month of January, the pressures reduced to sea level show a rise over New England, Ontario, and Quebec and a fall over Newfoundland and the rest of Canada and the United States. The greatest rises were: United States, Sault Ste. Marie, 0.04; Northfield, Eastport, and Portland, Me., 0.03; Canada, Father Point, 0.08; Quebec, 0.05; Chatham and White River, 0.04. The greatest falls were: United States, Lander, 0.27; Helena, 0.25; Walla Walla, 0.24; Spokane, 0.23; Abilene, 0.22; Pueblo, Amarillo, and Oklahoma, 0.21; Canada, Kamloops, 0.26; Banff, 0.21; Medicine Hat, 0.19; Edmonton, 0.18.

AREAS OF HIGH AND LOW PRESSURE.

By Prof. H. A. HAZEN.

During the month the tracks of eight highs and eleven lows have been sufficiently defined to be mapped (see Charts I and II). The accompanying table presents the principal facts regarding the place of origin and disappearance of these highs and lows.

In general the highs have taken a rather high latitude or